IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor film ~~after irradiating the first laser beam~~ while irradiating a second region of the crystalline semiconductor film with the first laser beam,

wherein the first region and the second region do not overlap each other.

2. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

3. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

4. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

5. (Original) A method of manufacturing a semiconductor device according to claim 4, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

6. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

7. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

8. (Original) A method of manufacturing a semiconductor device according to claim 7, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

9. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

10. (Withdrawn but Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

irradiating ~~a first laser beam to a~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate,

thereby melting and crystallizing the crystalline semiconductor film after adding the metal element; and

irradiating ~~second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor film while irradiating a second region of the crystalline semiconductor film with the first laser beam, thereby melting and crystallizing the crystalline semiconductor film ~~after irradiating the first laser beam~~ wherein the first region and the second region do not overlap each other.

11. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

12. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

13. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

14. (Withdrawn) A method of manufacturing a semiconductor device according to claim 13, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

15. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the first laser beam is emitted from a laser selected from the group

consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

16. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

17. (Withdrawn) A method of manufacturing a semiconductor device according to claim 16, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

18. (Withdrawn) A method of manufacturing a semiconductor device according to claim 10, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

19. (Withdrawn but Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate, thereby melting and crystallizing the crystalline semiconductor film after adding the metal element; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the

crystalline semiconductor film while irradiating a second region of the crystalline semiconductor film with the first laser beam, thereby reducing defects in the crystalline semiconductor film ~~after irradiating the first laser beam.~~

wherein the first region and the second region do not overlap each other.

20. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

21. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

22. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

23. (Withdrawn) A method of manufacturing a semiconductor device according to claim 22, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

24. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

25. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

26. (Withdrawn) A method of manufacturing a semiconductor device according to claim 25, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

27. (Withdrawn) A method of manufacturing a semiconductor device according to claim 19, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

28. (Withdrawn but Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming an amorphous semiconductor film over a transparent substrate;

adding a metal element to the amorphous semiconductor film followed by heating thereby forming a crystalline semiconductor film after forming the amorphous semiconductor film;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate after adding the metal element; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor firm ~~after irradiating the first laser beam~~ while irradiating a second region of the crystalline semiconductor film with the first laser beam,

wherein the first region and the second region do not overlap each other.

29. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

30. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

31. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

32. (Withdrawn) A method of manufacturing a semiconductor device according to claim 31, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

33. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

34. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

35. (Withdrawn) A method of manufacturing a semiconductor device according to claim 34, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

36. (Withdrawn) A method of manufacturing a semiconductor device according to claim 28, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

37. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film, thereby melting and crystallizing the crystalline semiconductor film; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor film ~~after irradiating the first laser beam~~ while irradiating a second region of the crystalline semiconductor film with the first laser beam, thereby melting and crystallizing the crystalline semiconductor film,

wherein the first region and the second region do not overlap each other.

38. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

39. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

40. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

41. (Previously Presented) A method of manufacturing a semiconductor device according to claim 40, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

42. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

43. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

44. (Previously Presented) A method of manufacturing a semiconductor device according to claim 43, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

45. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

46. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film, thereby melting and crystallizing the crystalline semiconductor film; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor film ~~after irradiating the first laser beam~~ while irradiating a second region of the crystalline semiconductor film with the first laser beam to reduce defects in the crystalline semiconductor film,

wherein the first region and the second region do not overlap each other.

47. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

48. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

49. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is emitted from a laser selected from the group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

50. (Previously Presented) A method of manufacturing a semiconductor device according to claim 49, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

51. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

52. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

53. (Previously Presented) A method of manufacturing a semiconductor device according to claim 52, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

54. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

55. (Previously Presented) A method of manufacturing a semiconductor device according to claim 1, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

56. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

57. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46, wherein the step of forming the crystalline semiconductor film containing the metal element over the transparent substrate comprises:

forming an amorphous semiconductor film over the transparent substrate;

adding the metal element to the amorphous semiconductor film; and

heating the amorphous semiconductor film to form the crystalline semiconductor film after adding the metal element.

58. (Previously Presented) A method of manufacturing a semiconductor device according to claim 1 further comprising a step of:

gettering the metal element after irradiating the second laser beam.

59. (Previously Presented) A method of manufacturing a semiconductor device according to claim 37 further comprising a step of:

gettering the metal element after irradiating the second laser beam.

60. (Previously Presented) A method of manufacturing a semiconductor device according to claim 46 further comprising a step of:

gettering the metal element after irradiating the second laser beam.

61. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a crystalline semiconductor film containing a metal element over a transparent substrate;

irradiating ~~a first laser beam to~~ a first region of the crystalline semiconductor film with a first laser beam in a direction from the crystalline semiconductor film to the substrate after forming the crystalline semiconductor film; and

irradiating ~~a second laser beam to~~ the first region of the crystalline semiconductor film with a second laser beam through the substrate in a direction from the substrate to the crystalline semiconductor film ~~after irradiating the first laser beam~~ while irradiating a second region of the crystalline semiconductor film with the first laser beam to segregate the metal element to defects in the crystalline semiconductor film,

wherein the first region and the second region do not overlap each other.

62. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein the first laser beam is a pulsed laser beam having a wavelength range from a visible region to a vacuum ultraviolet region, and the second laser beam is a pulsed or continuous wave laser beam having a wavelength range from a visible region to a vacuum ultraviolet region.

63. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein each of the first and second laser beams is emitted from a laser selected from the group consisting of a gas laser, a solid-state laser, and a metal laser.

64. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein the first laser beam is emitted from a laser selected from the

group consisting of an excimer laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a copper vapor laser, and a gold vapor laser.

65. (Previously Presented) A method of manufacturing a semiconductor device according to claim 64, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

66. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein the first laser beam is emitted from a laser selected from the group consisting of second, third, or fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

67. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein the second laser beam is emitted from a laser selected from the group consisting of an excimer laser, an Ar laser, a Kr laser, a glass laser, a ruby laser, an alexandrite laser, a Ti: sapphire laser, a He-Cd laser, a copper vapor laser, and a gold vapor laser.

68. (Previously Presented) A method of manufacturing a semiconductor device according to claim 67, wherein the excimer laser is selected from the group consisting of a XeCl excimer laser, a KrCl excimer laser, an ArF excimer laser, a KrF excimer laser, and a XeF excimer laser.

69. (Previously Presented) A method of manufacturing a semiconductor device according to claim 61, wherein the second laser beam is emitted from a laser selected from the group consisting of second, third, and fourth harmonics of a YAG laser, a YVO_4 laser, and a YLF laser.

70. (New) A method of manufacturing a semiconductor device according to claim 1 further comprising steps of:

forming a gettering site over the crystalline semiconductor film after irradiating the second laser beam; and

reducing the metal element contained in the crystalline semiconductor film by heating the crystalline semiconductor film and the gettering site.

71. (New) A method of manufacturing a semiconductor device according to claim 37 further comprising steps of:

forming a gettering site over the crystalline semiconductor film after irradiating the second laser beam; and

reducing the metal element contained in the crystalline semiconductor film by heating the crystalline semiconductor film and the gettering site.

72. (New) A method of manufacturing a semiconductor device according to claim 46 further comprising steps of:

forming a gettering site over the crystalline semiconductor film after irradiating the second laser beam; and

reducing the metal element contained in the crystalline semiconductor film by heating the crystalline semiconductor film and the gettering site.

73. (New) A method of manufacturing a semiconductor device according to claim 61 further comprising steps of:

forming a gettering site over the crystalline semiconductor film after irradiating the second laser beam; and

reducing the metal element contained in the crystalline semiconductor film by heating the crystalline semiconductor film and the gettering site.